



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,088	07/07/2003	Thomas Forest	0607 1457	6958
7590	02/01/2008			
Dreiss, Fuhlendorf, Steimle & Becker Patentanwalte Postfach 10 37 62 D-70032 Stuttgart, GERMANY			EXAMINER	
			CHERY, DADY	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	
			02/01/2008	DELIVERY MODE
				PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/613,088	FOREST ET AL.	
	Examiner	Art Unit	
	Dady Chery	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 November 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-22 and 27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed on 11/30/2007.

Response to Arguments

1. Applicant's arguments filed November 2007 have been fully considered but they are not persuasive.
2. The applicants argue that Woods fails to disclose "a communication cycle comprising a number of time slots assigned to one or more of the nodes". The examiner never suggests that Wood discloses such limitations. It is clearly stated on page 4 of the Office Action that Fellman discloses "a communication cycle comprising a number of time slots assigned to one or more of the nodes (Col. 5, lines 24 -34).
3. The applicants argue that Woods only discloses that the transmission of information is initiated by a lapse of time and not by an event. The examiner notes that Woods discloses that " the sequence of communication between the computers causing the message carrier to establish communication between selected computers based on **time deterministic task being performed by the computers**" (Col. 5, lines 3 -7). An event is defined as an outcome, issue, or result of anything. Therefore, the **deterministic task being performed by the computers** is considered as an event.
4. In response to applicant's argument that Woods is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention.

See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Woods teaches a master and a local event table that can be used in any network environment (packet or circuit switching). Therefore, a person with ordinary skill in the art will combine their teaching for the purpose of initiate each communication at the time defined in the schedule.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. A program does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

2. limitations of the base claim and any intervening claims.

This rejection can be overcome by reciting "a computer-readable storage medium storing a program having computer-executable instructions when executed by a processor to execute...."

3.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1- 22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fellman et al. (US Patent 6,246,702, hereinafter Fellman) in the view of Woods et al. (US Patent 6,748,451, hereinafter Woods).

Regarding claims 1, 21 and 26, Fellman discloses a *method for transmitting data within a communication system (Fig. 2), the communication system comprising a communication media (1) and a number of nodes (100) connected to the communication media, the method comprising the step of:*

transmitting the data across the communication media within a communication cycle comprising a number of time slots assigned to one or more nodes of the communication system (Col. 5, lines 24-34). Fellman discloses a method for transmitting data across a communication media (1) at regular intervals where dedicated time slots are defined for each nodes, which is the same function as described by the instant application.

Fellman does not clearly teach *the communication cycle is initiated by an event.* However, Woods teach a method (fig. 1) where a communication cycle is initiated by an

event (Col. 5, lines 3 – 7 and Col. 7, lines 49 –54). Which is the same function as described by the instant application. Woods also teaches a local event table (Fig. 1, 114) and master even table (112) that considered as the means for receiving internal and external event and a member node (107) which is considered as a means for initiating a communication cycle upon receipt the event.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to initiate the communication cycle by an event in order for each node to initiating each communication at the time defined in the schedule (Abstract).

Regarding claims 2 and 3, Fellman fails to teach the event is external or internal. However, Woods teaches a local event table (114) that is considered as internal event and a master event table (112) that is considered an external event.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to consider the event as internal or external for the purpose of controlling timing for applicable time dependent task (Col. 8, lines 1- 3).

Regarding claim 4, Fellman discloses *one of the nodes of the communication system is defined as a master node, which initiates said communication cycle in conjunction with a predetermined trigger signal* (Col. 10, lines 54 –Col. 11, lines 5). Where the common time reference is considered as a predetermined trigger signal.

Regarding claim 5, Fellman discloses *the master node receives the trigger signal* (Col. 10, lines 62 –64). Where the assigning of the signal is considered as receiving the signal.

Regarding claim 6, Fellman discloses *the master node generates the trigger signal* (Col. 10, lines 64 – 66). Where the master device generate a trigger signal that uses for synchronizing other slaves devices.

Regarding claim 7, Fellman discloses a *method wherein execution of the communication cycle is suspended until the master node receives or generates the trigger signal* (Col. 12, lines 45 –Col. 13, lines 12). Where the indication of no device is allowed to transmit (col. 23, lines 6- 9) is considered as suspended until the master device receives or generates the trigger signal..

Regarding claim 9, Fellman discloses a method where during a guard phase, which is period of time, the network is quiet any packet cannot be transmitted (Col. 14, lines 25 – 27). This is the same function as described by the instant application.

Regarding claim 10, Fellman discloses a *method wherein the master node issues an event indication signal (EIS) upon receipt or generation of said trigger signal* (Col. 10, lines 57 – Col. 11, lines 5), *the other nodes of the communication system being defined as slave nodes which receive said event indication signal and which resume execution of said communication cycle upon reception of said event indication signal* (Col. 11, lines 6 –15).

Regarding claim 11, Fellman discloses a *method wherein said communication cycle comprises a cycle gap (19) into which said nodes enter to suspend execution of the communication cycle* (fig. 9A,) the standard interpacket gap IPG is considered as the cycle gap, *wherein the master node issues said event indication signal and the slave nodes receive the event indication signal to resume execution of said communication cycle* (Col. 11, lines 6 –14).

Regarding claims 12 and 14, Fellman discloses *the method wherein the event indication signal is used for synchronizing the slave nodes* (Col. 10, lines 64 –66).

Regarding claim 13, Fellman discloses *the method wherein said event indication signal is defined as a low/high/low sequence (Fig. 5), wherein a high/low transition is used as a synchronizing event for said slave nodes* (Col. 14, lines 1 – 24).

Regarding claim 15, Fellman discloses *the method wherein the trigger signal is generated in the master node* (Col. 10, lines 64 –66).

Regarding claim 16, Fellman discloses *the method wherein the trigger signal is applied to the master node from a unit external to the master node* (Col. 15, lines 27 –30).

Regarding claim 17, Fellman discloses *the method wherein the communication cycle comprises a static segment with time slots of a predefined size and in a predefined order* (Fig. 4, and Col. 12, lines 13- 16).

Regarding claim 18, Fellman discloses *the method wherein the communication cycle comprises a dynamic segment with time slots for transmitting a variable number of frames of variable length and variable order* (Fig. 5, and col. 14, lines 2- 14).

Regarding claim 19 and 20, Fellman discloses computer readable medium including RAM and ROM for storing the computer program to execute the method of claim 1 (Fig. 2, and 3). Every computer has memory (RAM and ROM).

Regarding claim 22, Fellman discloses *the node wherein the event receiving means accommodate a predefined trigger signal, wherein said means for initiating said communication cycle initiate said communication cycle upon receipt of said trigger signal* (Col. 10, lines 57 –col. 11, lines 5) Where the master device is considered as the means.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dady Chery whose telephone number is 571-270-1207. The examiner can normally be reached on Monday - Thursday 8 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dady Chery 01/22/2008



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER